PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1. (canceled)
- 2. (canceled)
- 3. (canceled)
- 4. (canceled)
- 5. (canceled)
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- 15. (canceled)

TTC-PA 650-326-2422

- 16. (canceled)
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<u>PATENT</u>

- 52. (canceled)
- 53. (canceled)
- 54. (original) A device for analyzing a sample, the device comprising:
- a) a body having:
- i) a reaction chamber for chemically reacting the sample;
- ii) a separation region for separating components of the sample;
- iii) a transition region connecting the reaction chamber to the separation region; and
- iv) at least one mechanical valve in the transition region for controlling fluid flow between the reaction chamber and the separation region;
- b) a first electrode coupled to the body adjacent the reaction chamber;
- c) a second electrode coupled to the body adjacent the transition region; and
- d) a third electrode coupled to the body adjacent the separation region, the electrodes being positioned such that when a first voltage is applied between the first and second electrodes, the components in the sample are transported from the reaction chamber to the transition region, and such that when a second voltage is applied between the second and third electrodes, the sample components are transported into the separation region.
- 55. (original) The device of claim 54, further comprising a molecular weight filter for filtering species in the sample having a sufficiently high molecular weight, the filter being positioned in a channel between the second electrode and the transition region such that when the first voltage is applied between the first and second electrodes, the species are transported from the reaction chamber and collected on the filter, and such that when the second voltage is applied between the second and third electrodes, the species collected on the filter are transported into the separation region.

- 56. (original) The device of claim 54, wherein the body further includes:
- a) a side channel connected to the transition region for adding or removing fluid from the transition region; and
- b) at least a second mechanical valve for controlling fluid flow through the side channel.
- 57. (original) The device of claim 56, wherein the valves comprise membrane valves.
 - 58. (canceled)
 - 59. (canceled)
 - 60. (canceled)
 - 61. (canceled)
- 62. (original) The device of claim 54, wherein the body comprises a polymeric material, and wherein the electrodes are over-molded in the body.
- 63. (original) The device of claim 54, wherein the electrodes are screen-printed on the body.
 - 64. (canceled)
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